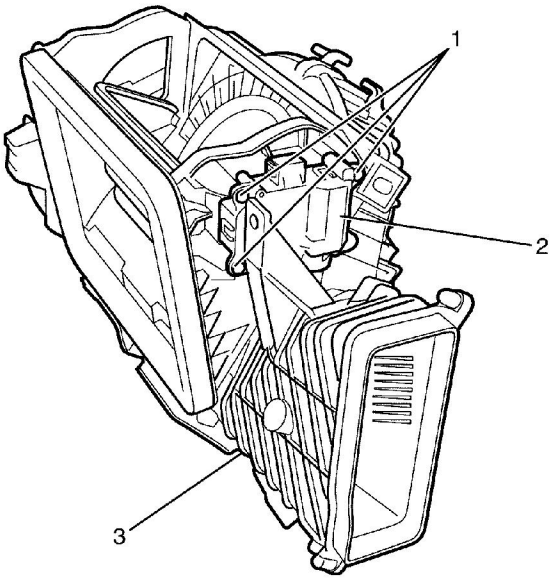
Air Inlet Valve Actuator Replacement

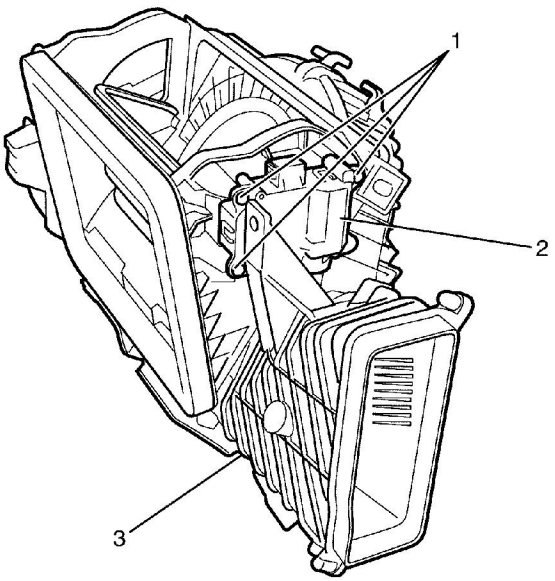
Removal Procedure

1. Remove the air inlet assembly. Refer to Air Inlet Assembly Replacement.



2. Remove the recirculation actuator to air inlet assembly retaining screws (1).
3. Remove the recirculation actuator (2) from the air inlet assembly (3).

Installation Procedure



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1. Install the recirculation actuator (2) to the air inlet assembly (3).

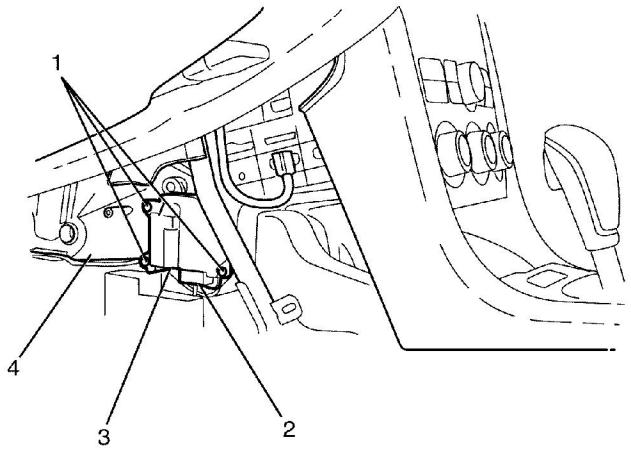
   Caution: Refer to Fastener Caution in the Preface section.

2. Install the recirculation actuator to air inlet assembly retaining screws (1) and tighten to **1 N·m (9 lb in)**
3. Inspect air intake door shaft end for damage, also check the air intake door for full movement, open/close. If damage is evident, replace the air intake housing.
4. Install the air inlet assembly. Refer to Air Inlet Assembly Replacement.
5. Perform HVAC system relearn. Refer to HVAC Control Module Programming and Setup.

Mode Valve Actuator Replacement

Removal Procedure

1. Remove the knee bolster. Refer to Knee Bolster Replacement.
2. Remove the left close out panel. Refer to Instrument Panel Insulator Panel Replacement - Left Side.
3. Remove the hood release handle. Refer to Hood Primary Latch Release Cable Replacement.
4. Remove the instrument panel retainer. Refer to Instrument Panel Retainer Replacement.
5. Remove the left instrument panel extension. Refer to Instrument Panel Extension Replacement.



6. Disconnect the auxiliary mode door actuator electrical connector (2).
7. Remove the auxiliary mode door actuator to HVAC module assembly retaining screws (1).
8. Remove the auxiliary mode door actuator (3) from the HVAC module assembly (4).

Installation Procedure

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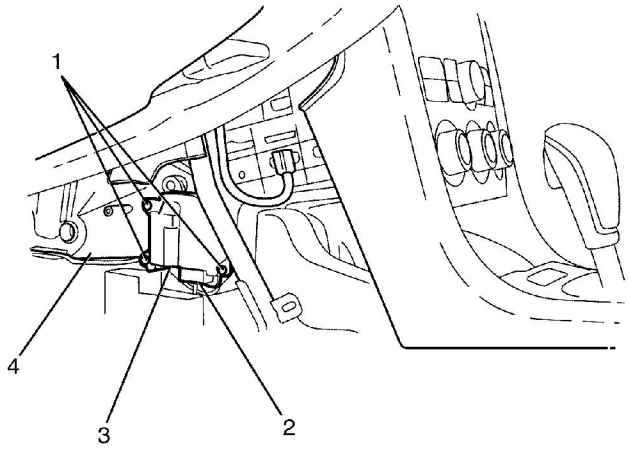


1. Install the auxiliary mode door actuator (3) to the HVAC module assembly (4)..

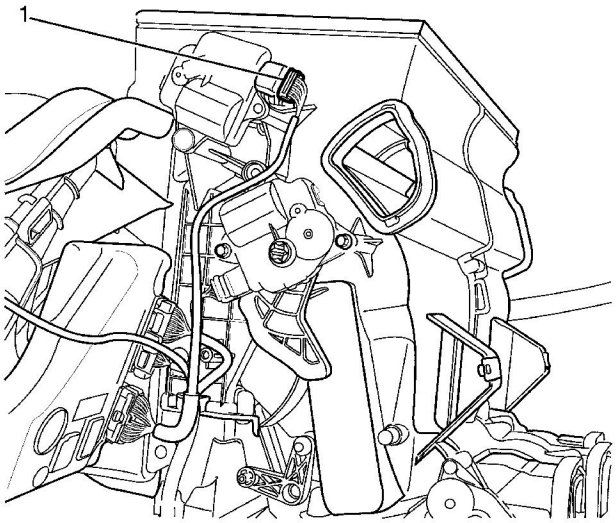
   Caution: Refer to Fastener Caution in the Preface section.

2. Install the auxiliary mode door actuator to HVAC module assembly retaining screws (1) and tighten to **1 N·m (9 lb ft)**.
3. Connect the auxiliary mode door actuator electrical connector (2).
4. Install the left instrument panel extension. Refer to Instrument Panel Extension Replacement.
5. Install the instrument panel retainer. Refer to Instrument Panel Retainer Replacement.
6. Install the hood release handle. Refer to Hood Primary Latch Release Cable Replacement.
7. Install the left close out panel. Refer to Instrument Panel Insulator Panel Replacement - Left Side.
8. Install the knee bolster. Refer to Knee Bolster Replacement.
9. Perform HVAC system relearn. Refer to HVAC Control Module Programming and Setup.

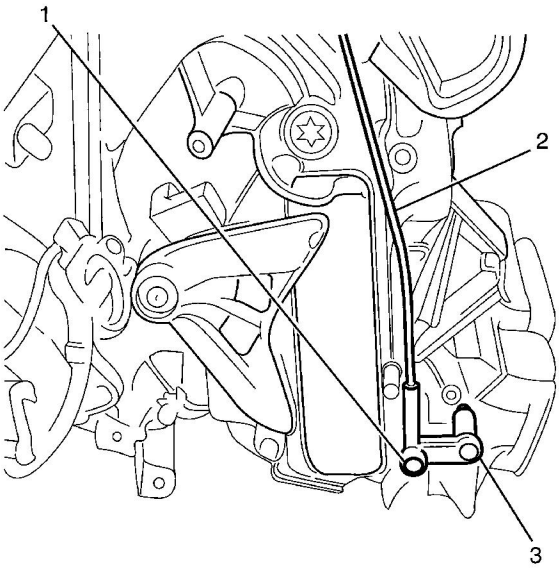
Defroster Valve Actuator Replacement

Removal Procedure

1. Remove the I/P lower trim plate assembly. Refer to Instrument Panel Insulator Panel Replacement - Left Side.
2. Remove the instrument panel outer trim cover. Refer to Instrument Panel Outer Trim Cover Replacement.
3. Remove the I/P compartment assembly. Refer to Instrument Panel Compartment Replacement.
4. Remove the left side floor duct. Refer to Floor Air Outlet Duct Replacement - Left Side.



5. Disconnect the defrost mode actuator electrical connector (1).



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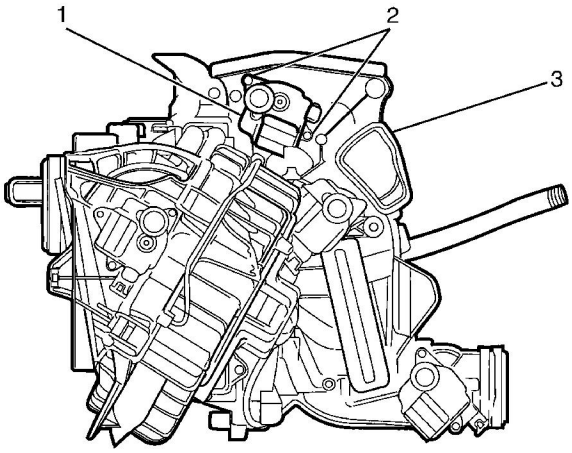
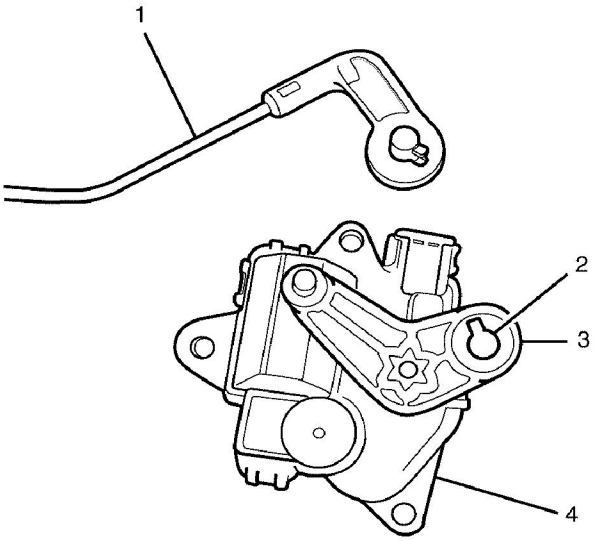
Note: Using a suitable tool, squeeze the rear passenger mode rod to rear passenger mode door lever retaining clip (1) to detach the rear passenger mode rod (2) from the rear passenger mode door lever (3).

6. Detach the rear passenger mode rod (2) from the mode door lever (3).



7. Remove the defrost mode actuator to HVAC module assembly retaining screws (2).
8. Remove the defrost mode actuator and the rear passenger mode lever (1) from the HVAC module assembly (3).



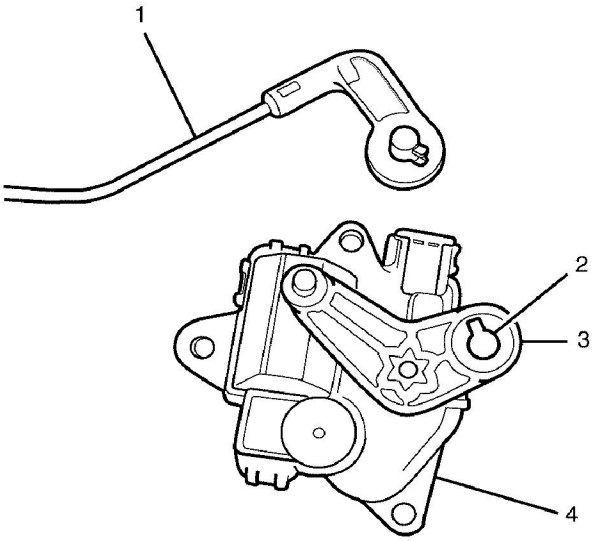
Note: Rotate the rear passenger mode rod (1) to match the actuator lever locking position opening (2), then remove rear passenger mode rod (1).

9. Detach the rear passenger mode rod (1) from the defrost mode actuator (4).

Note: Take note of the rear passenger mode lever (3) position in relation to the actuator housing (4).

10. Gently remove the rear passenger mode lever (3) from the defrost mode actuator (4).

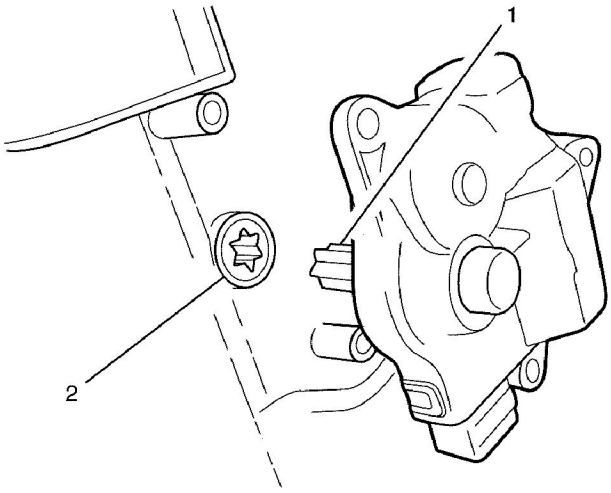
Installation Procedure



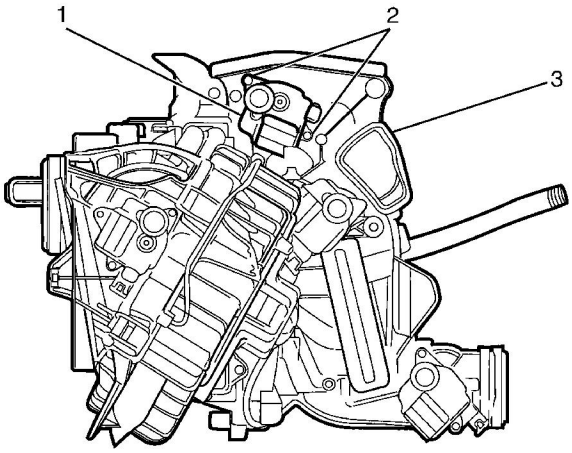
1. Install the rear passenger mode lever (3) to the defrost mode actuator (4).

Note: Rotate the rear passenger mode rod (1) to match the actuator lever locking position opening (2), to install the rear passenger mode rod (1).

2. Attach the rear passenger mode rod (1) to the actuator (4).



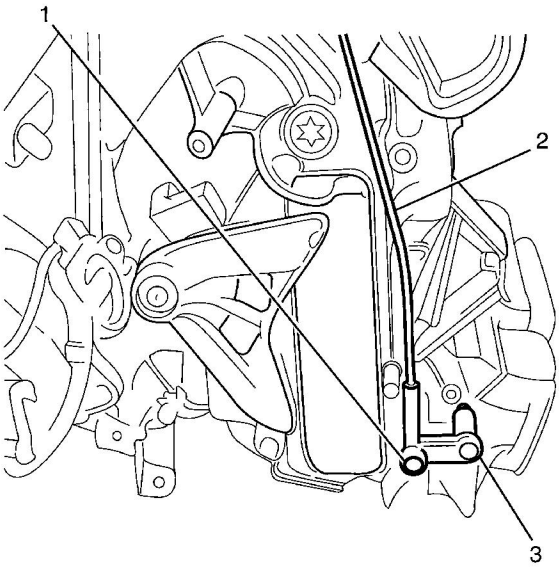
3. Align the actuator drive gear (1) with the door shaft spline (2).



4. Install the and the rear passenger mode lever (1) to the HVAC module assembly (3).

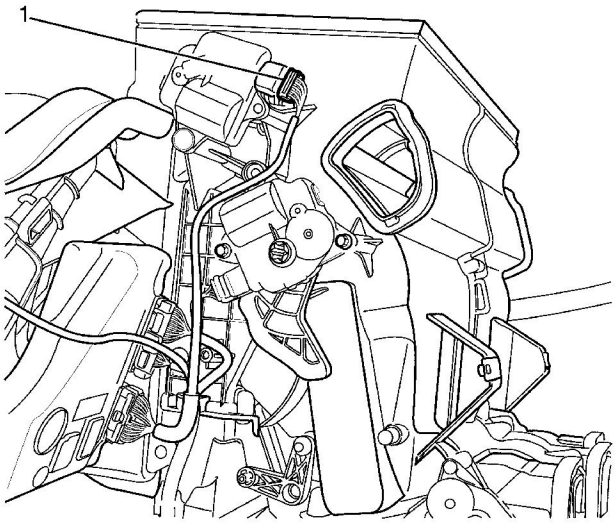
   Caution: Refer to Fastener Caution in the Preface section.

5. Install the defrost mode actuator to HVAC module assembly retaining screws (2) and tighten to **1 N·m (9 lb in)**.



Note: Make sure the rear passenger mode rod to rear passenger mode door lever retaining clip (1) is correctly engaged to prevent the rear passenger mode door lever (3) from functioning incorrectly.

6. Attach the rear passenger mode rod (2) to the mode door lever (3).



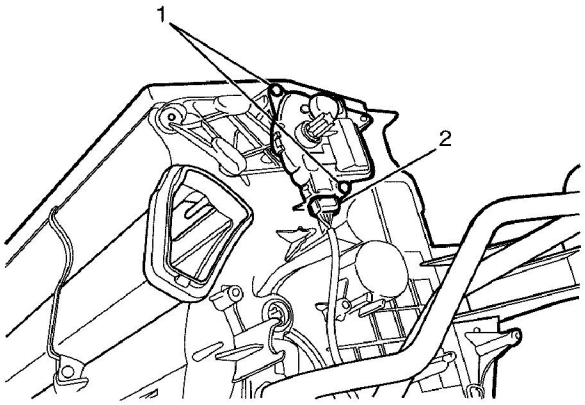
7. Connect the defrost mode actuator electrical connector (1).
8. Install left side floor duct. Refer to Floor Air Outlet Duct Replacement - Left Side.
9. Install the I/P compartment assembly. Refer to Instrument Panel Compartment Replacement.
10. Install instrument panel outer trim cover. Refer to Instrument Panel Outer Trim Cover Replacement.
11. Install the I/P lower trim plate assembly. Refer to Instrument Panel Insulator Panel Replacement - Left Side.

12. Perform HVAC system relearn. Refer to HVAC Control Module Programming and Setup.

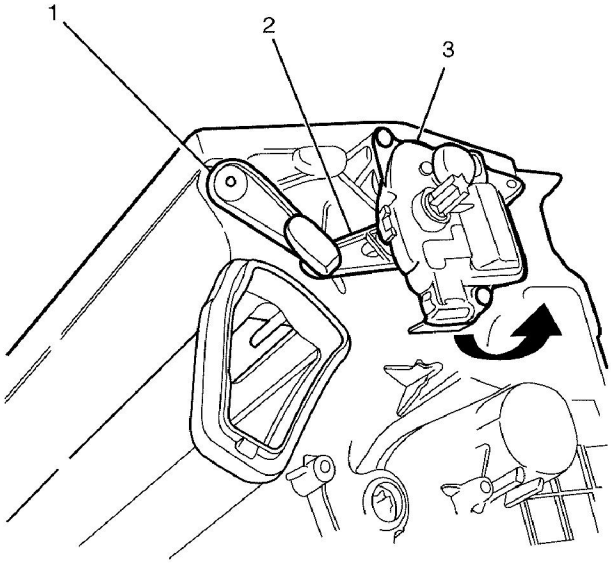
Floor Air Valve Actuator Replacement

Removal Procedure

1. Remove the right side console lower extension. Refer to Instrument Panel Extension Replacement.
2. Remove the instrument panel lower right trim plate assembly. Refer to Instrument Panel Insulator Panel Replacement - Right Side.
3. Remove right side floor duct. Refer to Floor Air Outlet Duct Replacement - Right Side.



4. Disconnect the face/floor actuator electrical connector (3).
5. Remove the face/floor actuator to HVAC module assembly retaining screws (1).



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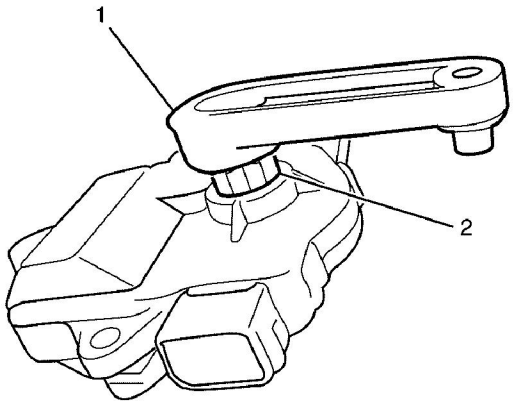
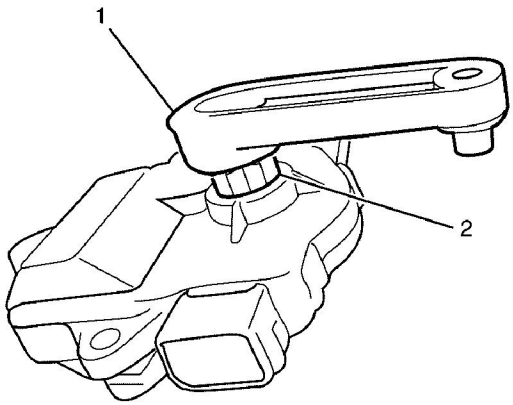
Note: Pivot the face/floor mode actuator (3) upwards and remove the face/floor mode actuator lever (2) from the face door mode lever (1).

6. Remove the face/floor mode actuator lever (2) from the face door mode lever (1).

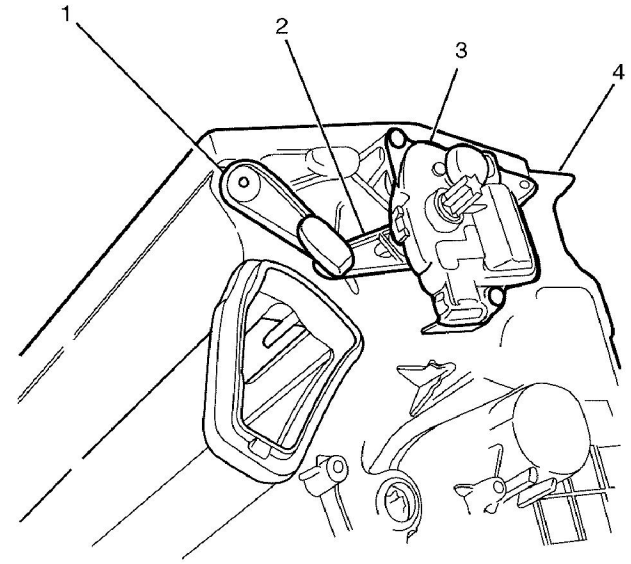


7. Record where the face/floor mode actuator lever (1) is located onto the face/floor actuator drive spline (2) for installation.

Installation Procedure

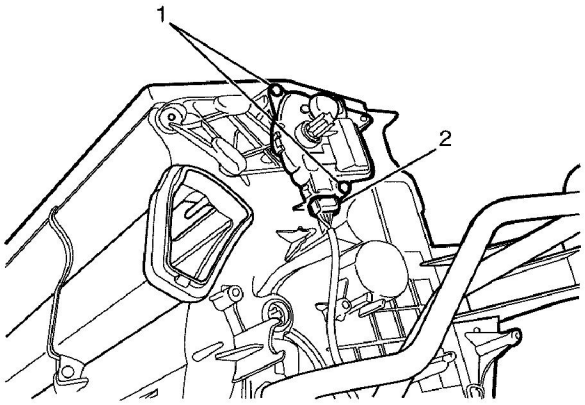


1. Detach and move the face/floor mode actuator lever (1) to the recorded position on the face/floor actuator drive spline (2) as required.



2. Install the actuator lever (2) to the face door mode lever (1) and pivot the face/floor mode actuator (3) into position on the HVAC module assembly (4).

Caution: Refer to Fastener Caution in the Preface section.

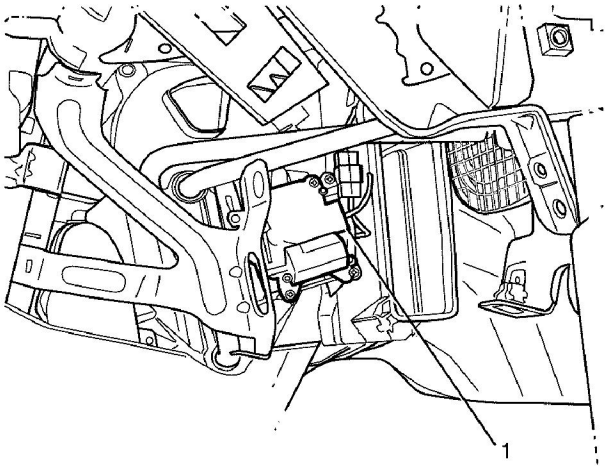


3. Install the face/floor mode actuator to HVAC module assembly retaining screws (1) and tighten to **1.2 N·m (9 lb ft)**.
4. Connect the face/floor mode actuator electrical connector (3).
5. Install the instrument panel lower right trim plate assembly. Refer to Instrument Panel Insulator Panel Replacement - Right Side.
6. Install right side floor duct. Refer to Floor Air Outlet Duct Replacement - Right Side.
7. Perform HVAC system relearn. Refer to HVAC Control Module Programming and Setup.

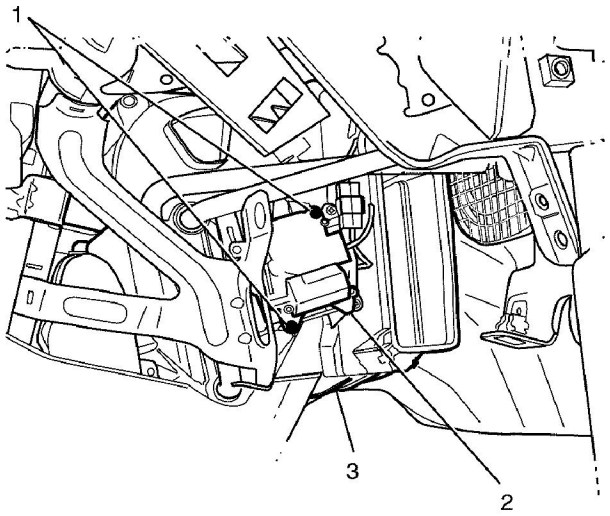
Temperature Valve Actuator Replacement - Right Side

Removal Procedure

1. Remove the air inlet assembly. Refer to Air Inlet Assembly Replacement.



2. Disconnect the right air temperature actuator electrical connector (1).



3. Remove the right air temperature actuator to HVAC module assembly retaining screws (1).
4. Remove the right air temperature actuator (2) from the HVAC module assembly (3).

Installation Procedure

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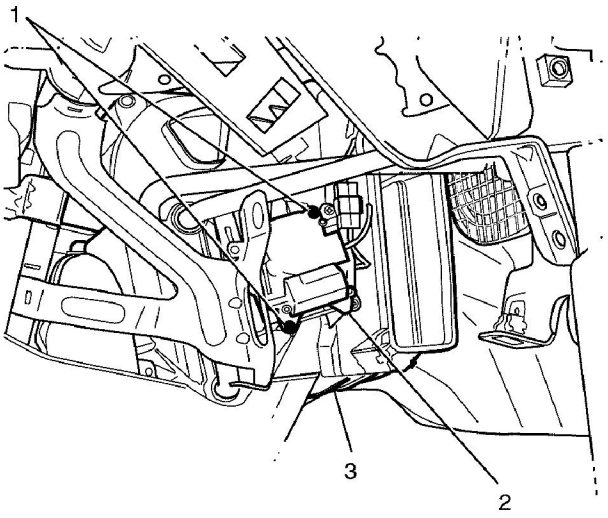
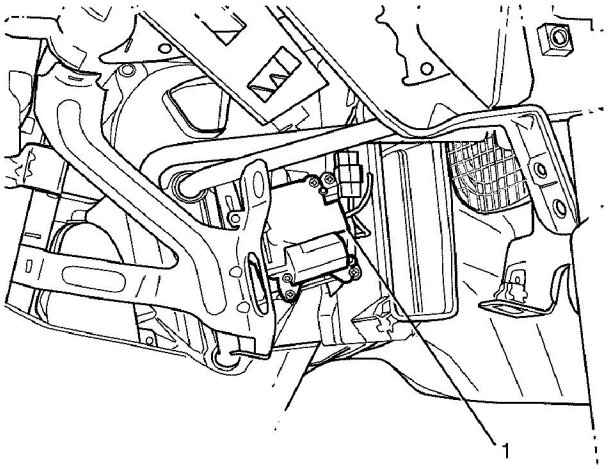


1. Install the right air temperature actuator (2) to the HVAC module assembly (3).

Caution: Refer to Fastener Caution in the Preface section.

2. Install the right air temperature actuator to HVAC module assembly retaining screws (1) and tighten to **1 N·m (9 lb in)**.

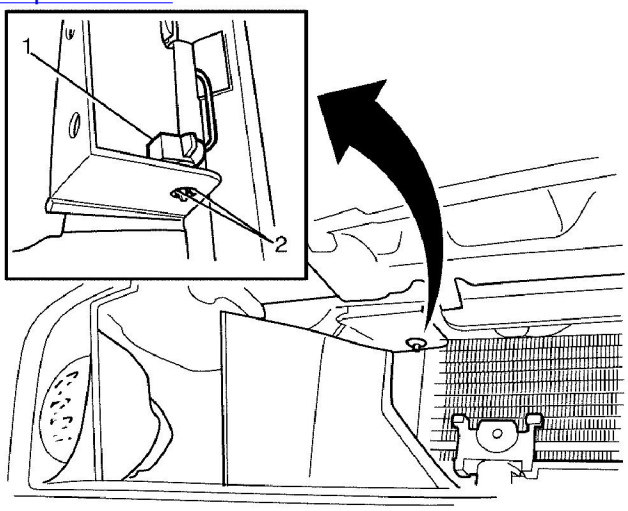


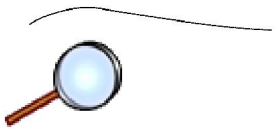
3. Connect the right air temperature actuator electrical connector (1).
4. Install the air inlet assembly. Refer to Air Inlet Assembly Replacement.
5. Perform HVAC system relearn. Refer to HVAC Control Module Programming and Setup.

Ambient Air Temperature Sensor Replacement

Removal Procedure

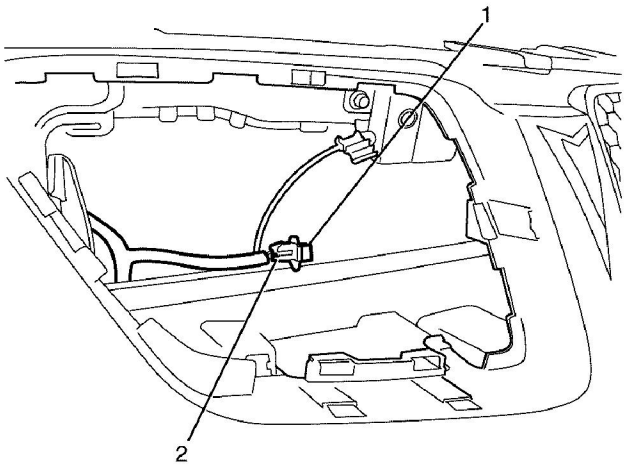
1. Remove the right radiator grille. Refer to Radiator Grille Replacement.
2. Remove the right front bumper fascia lower grille. Refer to Front Bumper Lower Fascia Grille Replacement.





Important: Accessing the ambient temperature sensor (1) through the right front bumper fascia lower grille cavity, remove the ambient temperature sensor (1) by squeezing the locking tabs (2) and push free from the bracket.

3. Detach the ambient air temperature sensor (1) from the bracket.



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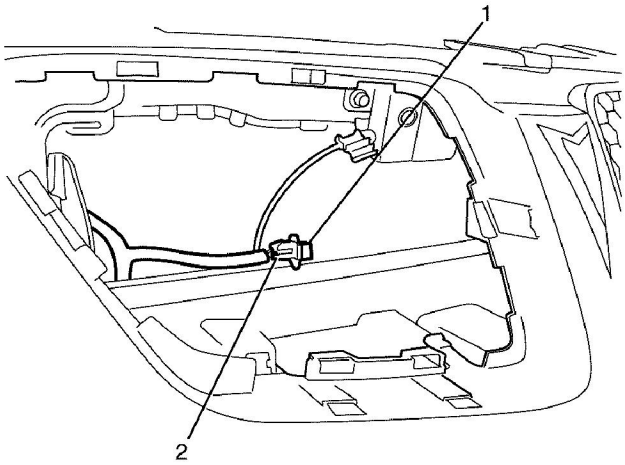
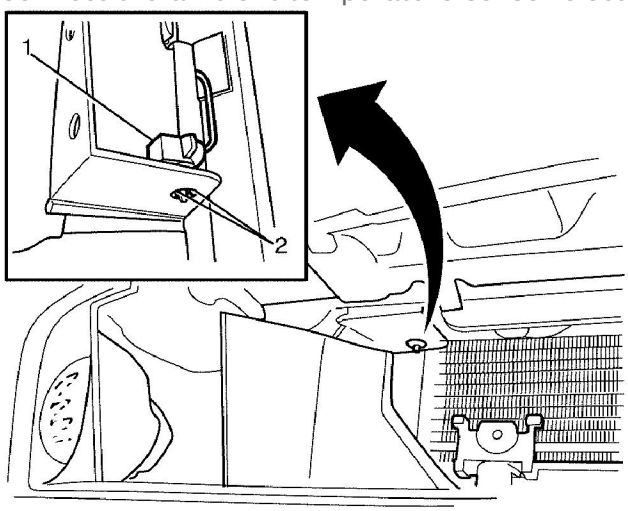
Important: Access the ambient temperature sensor (1) through the right radiator grille cavity to aid removal.

4. Disconnect the ambient temperature sensor electrical connector (2).
5. Remove the ambient air temperature sensor (1).

Installation Procedure



1. Position the ambient air temperature sensor (1) in the right radiator grille cavity.
2. Connect the ambient temperature sensor electrical connector (2).



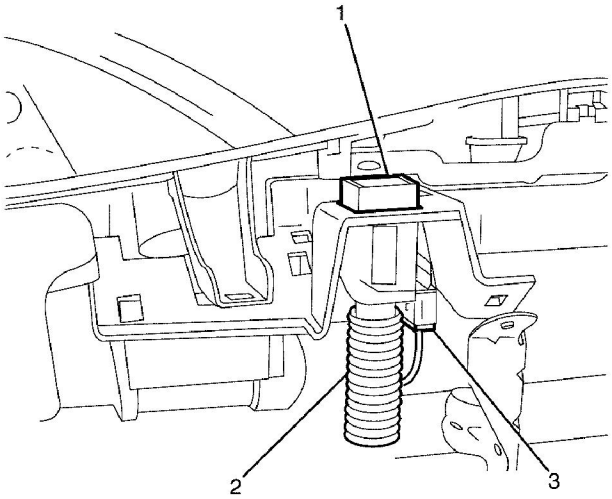
Important: Accessing the ambient temperature sensor (1) through the right front bumper fascia lower grille cavity, install the ambient temperature sensor (1) by ensuring the locking tabs (2) are correctly located in the bracket.

3. Install the ambient temperature sensor (1) to the bracket.
4. Install the right front bumper fascia lower grille. Refer to Front Bumper Lower Fascia Grille Replacement.
5. Install the right radiator grille. Refer to Radiator Grille Replacement.

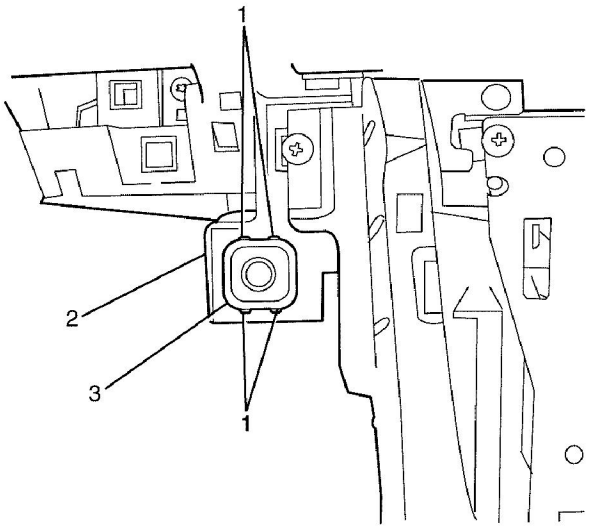
Inside Air Temperature Sensor Replacement

Removal procedure

1. Remove the right side instrument panel lower trim cover. Refer to Instrument Panel Insulator Panel Replacement - Right Side.



2. Remove the aspirator tube (2) from the rear of the inside air temperature sensor (1).
3. Disconnect the inside air temperature sensor electrical connector (3).



Important: From the front of the inside air temperature sensor (3) use a suitable tool to push down on the four inside air temperature sensor to instrument panel carrier retaining

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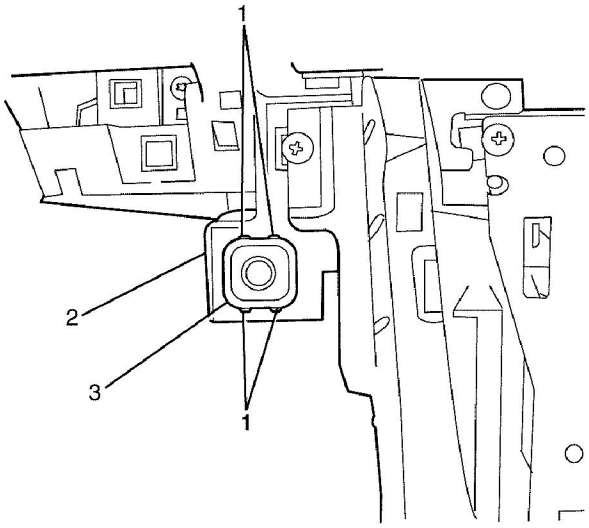
clips (1). Withdraw the inside air temperature sensor (1) rearwards towards the bulkhead from the instrument panel carrier (3).

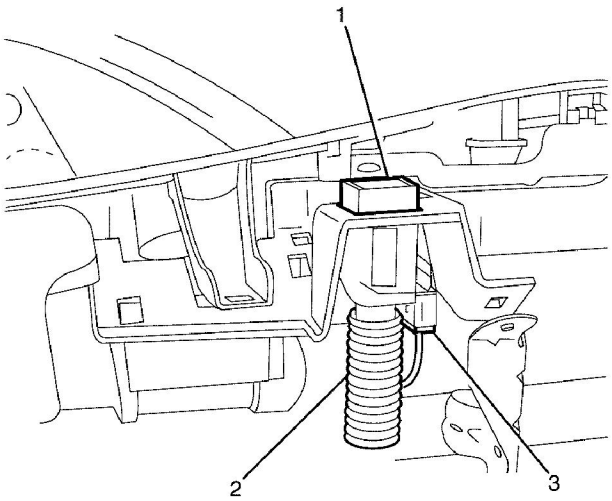
4. Remove the inside air temperature sensor (3) from the instrument panel carrier (2).

Installation Procedure



Important: Make sure the inside air temperature sensor to instrument panel carrier retaining clips (1) are correctly engaged to avoid an induced rattle condition.

1. Install the inside air temperature sensor (3) to the instrument panel carrier (2).



2. Connect the inside air temperature sensor electrical connector (3).
3. Install the aspirator tube (2) to the rear of the inside air temperature sensor (1).
4. Install the right side instrument panel lower trim cover. Refer to Instrument Panel Insulator Panel Replacement - Right Side.

Sun Load Temperature Sensor Replacement

Refer to Sunload and Twilight Sentinel Sensor Replacement.

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